



ATID Application Development Framework Reference Manual –GPS

Revision: Ver. 0.2

Date: January, 2012

ATID Co.,Ltd

Table of Contents

Table of Contents	2
Acronym	3
Revision History	4
1 .NET API Reference	5
1.1 Enumerations	5
1.1.1 GPS_RESULT	5
1.1.2 BAUDRATE	5
1.1.3 PORT	6
1.2 Delegates	7
1.2.1 GPSCALLBACK	7
1.3 Methods	8
1.3.1 Open	8
1.3.2 Close	8
1.3.3 IsOpen	8
1.3.4 SetCallback	9
2 C/C++ API Reference	10
2.1 Enumerations	10
2.1.1 GPS_RESULT	10
2.1.2 PORT	10
2.2 Callback function definition	11
2.2.1 GPSPMGSCALLBACK	11
2.3 Constants	11
2.3.1 WM_GPS_ONRECEIVED	11
2.4 Methods	12
2.4.1 GpsOpen	12
2.4.2 GpsClose	12
2.4.3 GpsIsOpen	12
2.4.4 GpsSetCallbackFunc	13
2.4.5 GpsSetHwnd	13

Acronym

modules	descriptions
AADF	ATIDApplication Development Framework
GPS	Global Positioning System

Revision History

Version	Date	Reason	Description	Author
0.1	2012/01/26	Draft		Y. J. CHO

1 .NET API Reference

1.1 Enumerations

1.1.1 GPS_RESULT

The result of a call to functions.

- **GPS_RESULT_SUCCESS**
Function executed successfully.
- **GPS_RESULT_INVALID_ARGS**
Invalid parameter.
- **GPS_RESULT_OUTOFMEMORY**
Failed to assign memory.
- **GPS_RESULT_UNSUPPORTED**
Not support command currently.
- **GPS_RESULT_ALREADY_OPENED**
GPS device has already opened.
- **GPS_RESULT_NOT_OPENED**
Call function without Open.
- **GPS_RESULT_FAILURE**
Failed to perform function.
- **GPS_RESULT_INVALID_DEVICE**
notinstalled.GPS device

1.1.2 BAUDRATE

Baudrate that will be used while open GPS device.

- **BR_2400**
- **BR_4800**
- **BR_9600**
- **BR_14400**
- **BR_19200**
- **BR_38400**
- **BR_57600**
- **BR_115200**
- **BR_256000**

1.1.3 PORT

Port number, that will be used while open GPS device.

- **COM1**
- **COM2**
- **COM3**
- **COM4**
- **COM5**
- **COM6**
- **COM7**
- **COM8**
- **COM9**
- **COM10**

1.2 Delegates

1.2.1 GPSCALLBACK

Delegate functions that will be called while receive data from GPS.

In order to process data in application program, use SetCallbackFunc(GPSCALLBACK GpsCallback) function to set delegate function.

Public delegate void **GPSCALLBACK**(stringsData);

1.3 Methods

1.3.1 Open

Apply voltage to and initialize the GPS device.

```
GPS_RESULT Open(  
    PORT gpsPort,  
    BAUDRATE baudrate  
);
```

Parameters

gpsPort

Port Name when open port.

Baudrate

theBaudrate that will be used while open.

Return Values

GPS_RESULT_SUCCESS will be returned if executed successfully.

Notes

The PORT should be COM6, and GPS_Baud should be 9600 in the SIxx series.

If this function executed successfully, AADF will perform delegate (call back) function that registered in AADF application program when every time receives GPS data.

1.3.2 Close

Remove the voltage from the GPS device and clear the assigned resource.

```
GPS_RESULT Close();
```

Parameters

None

Return Values

MSR_RESULT_SUCCESS will be returned if performed successfully.

1.3.3 IsOpen

Checking that whether the GPS device has already opened.

```
boolIsOpen();
```


Parameters

None

Return Values

TRUE: GPS device is open.

FALSE: GPS device is not open.

1.3.4 SetCallback

registering delegate function executed when receiving NMEA data from GPS device.

```
GPS_RESULT SetCallback(  
    GPSCALLBACK GpsCallback,  
);
```

Parameters

GpsCallback

registering delegate function executed when receiving NMEA data from GPS device.

Return Values

MSR_RESULT_SUCCESS will be returned if performed successfully.

2 C/C++ API Reference

2.1 Enumerations

2.1.1 GPS_RESULT

The result of a call to functions.

- **GPS_RESULT_SUCCESS**
Function executed successfully.
- **GPS_RESULT_INVALID_ARGS**
Invalid parameter.
- **GPS_RESULT_OUTOFMEMORY**
Failed to assign memory.
- **GPS_RESULT_UNSUPPORTED**
Not support command currently.
- **GPS_RESULT_ALREADY_OPENED**
GPS device has already opened.
- **GPS_RESULT_NOT_OPENED**
Call function without Open.
- **GPS_RESULT_FAILURE**
Failed to perform function.
- **GPS_RESULT_INVALID_DEVICE**
notinstalled.GPS device

2.1.2 PORT

Port number, that will be used while open GPS device.

- **COM1**
- **COM2**
- **COM3**
- **COM4**
- **COM5**
- **COM6**
- **COM7**
- **COM8**
- **COM9**
- **COM10**

2.2 Callback function definition

2.2.1 GPSTMGSCALLBACK

Callback functions that will be called while receive data from GPS.

In order to process data in application program, use GpsSetCallbackFunc(GPSCALLBACK pFunc) function to set callback function.

- typedef void (CALLBACK* **GPSTMGSCALLBACK**)(LPWSTR szGpsData);

2.3 Constants

2.3.1 WM_GPS_ONRECEIVED

Windows Message, that will process while get data from GPS device

- #define **WM_GPS_ONRECEIVED** WM_USER + 1803

2.4 Methods

2.4.1 GpsOpen

Apply voltage to and initialize the GPS device.

```
GPS_RESULT GpsOpen(  
    PORT GPS_Port,  
    unsigned int GPS_Baud  
);
```

Parameters

GPS_Port

Port Name when open port.

GPS_Baud

theBaudrate that will be used while open.

Return Values

MSR_RESULT_SUCCESS will be returned if executed successfully.

Notes

The GPS_Port should be COM6, and GPS_Baud should be 9600.

If this function executed successfully, AADF will perform delegate (call back) function that registered in AADF application program whenever receives NMEA data from GPS device.

2.4.2 GpsClose

Remove the voltage from the GPS device and clear the assigned resource.

```
GPS_RESULT GpsClose();
```

Parameters

None

Return Values

MSR_RESULT_SUCCESS will be returned if performed successfully.

2.4.3 GpsIsOpen

Checking that whether the GPS device has already opened

```
BOOL GpsIsOpen ();
```

Parameters*None***Return Values**

TRUE: GPS device is open.

FALSE: GPS device is not open.

2.4.4 GpsSetCallbackFunc

registering delegate function executed when receiving NMEA data from GPS device.

```
GPS_RESULT GpsSetCallbackFunc (  
    GPMSG_CALLBACK pFunc  
);
```

Parameters*pFunc*

Callback function, which will receive NMEA data from GPS device.

Return Values

MSR_RESULT_SUCCESS will be returned if performed successfully.

2.4.5 GpsSetHwnd

Registering delegate function executed when receiving NMEA data from GPS device.

```
GPS_RESULT GpsSetHwnd (  
    HWND hWnd  
);
```

Parameters*hWnd*

window handle of application that will receive message when receiving NMEA data from GPS device.

Return Values

MPS_RESULT_SUCCESS will be returned if performed successfully.